

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

TANITA CORPORATION,)	
)	
Plaintiff,)	Case No. 08-CV-7145
)	
v.)	
)	
HOMEDICS-U.S.A., INC. and TAYLOR)	
PRECISION PRODUCTS, INC.,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER

JAMES F. HOLDERMAN, Chief Judge:

On December 12, 2008, Tanita Corporation (“Tanita”) filed a complaint against Homedics-U.S.A., Inc., and Taylor Precision Products, Inc. (collectively “Homedics”) claiming that Homedics infringed three of Tanita’s patents: U.S. Patent Nos. 6,590,166 (“‘166 Patent”), RE37,954 (“‘954 Patent”), and 6,532,385 (“‘385 Patent”). (Dkt. No. 1, Compl. ¶¶ 15, 19, 23.) Tanita later withdrew its allegations of infringement with respect to the ‘166 and ‘954 Patents. (See Dkt. No. 39, 3d Am. Compl. ¶¶ 13-15.) On February 1, 2010, Homedics filed an answer and counterclaims, requesting a declaratory judgment of non-infringement and invalidity of the ‘385 Patent and asserting a breach of contract claim against Tanita. (Dkt. No. 41, Homedics’s Answer 8-9.)

The parties initially requested that this court construe one claim term in the ‘385 Patent: “doughnut shape.” In its Responsive Claim Construction Brief, however, Tanita identified a second claim term for the court’s construction: “living body measuring apparatus with a built-in weight meter.” (Dkt. No. 61 (“Tanita’s Resp.”) at 1.) On October 8, 2010, this court held a

Markman hearing where the parties' counsel presented oral arguments on their proposed claim constructions. Having considered all the evidence, both intrinsic and extrinsic, along with counsels' arguments, the relevant legal authority, and the parties' submissions, the court rules as stated below as to the meaning of the two disputed claim terms to a person of ordinary skill in the art at the time of the application for the '385 Patent.

BACKGROUND

On March 11, 2003, the U.S. Patent and Trademark Office ("PTO") issued the '385 Patent, titled "Living Body Measuring Apparatus with Built-In Weight Meter." ('385 Patent.) The '385 Patent, which was filed on February 6, 2001, lists Takashi Serizawa and Takeshi Iijima from Tokyo, Japan, as the named inventors and Tanita as the assignee. (*Id.*) On September 25, 2007, the PTO issued a reexamination certificate for the '385 Patent ("385 Patent Reexamination Certificate"), which introduced several new claims and reaffirmed the patentability of claims 1 through 3 and 5 through 9. (*Id.*) Tanita has asserted claims 1 and 2 from the '385 Patent and claims 5, 12, 13, 14, and 16 from the '385 Patent Reexamination Certificate against Homedics. (Tanita's Resp. 10.)

The Abstract for the '385 Patent provides the following description of the invention:

[A] living body measuring apparatus with a built-in weight meter, comprising: a measuring platform; and electrodes, whereby said measuring platform being constructed in two-layered configuration having inner and outer boards, said electrodes being arranged on said outer board to measure a living body impedance, and said outer board of the measuring platform being formed from a transparent plate. Therefore a paper bearing the caution notice or the description of operation can be affixed to the lower surface of the outer board because they are still visible through the transparent outer board. This obviates the tendency for a person to be measured to inevitably tread the paper with his soles for measurement. Furthermore, if the person mounts the outer board with his feet as

wetted after taking a bath, there is no possibility to wet the paper, thereby preventing the paper from peeling off.

(*Id.* at Abstract.)

The Field of the Invention of the ‘385 Patent describes the invention as

a living body measuring apparatus for measuring a living body impedance and for providing a body fat rate or other information useful for health care. More particularly the present invention relates to a living body measuring apparatus with a built-in weight meter that comprises a transparent measuring platform.

(*Id.* at col. 1:7–13.)

According to the ‘385 Patent, the claimed invention introduces a number of advances over the prior art, including: 1) allowing the manufacturer to affix important notices to the apparatus without the risk of the notices later peeling off by an individual’s feet and without requiring an individual to turn the apparatus upside down to read the notices; 2) allowing an individual to easily locate the electrodes and correctly mount the apparatus to avoid errors in measurement; 3) providing a visible display unit; and 4) allowing an individual to discover minor faults without completely disassembling the apparatus. (*Id.* at col. 2:16-28.)

The first disputed claim term, “doughnut shape,” appears in dependent claim 2, which states: “A living body measuring apparatus with a built-in weight meter according to claim 1 in which said inner board has a doughnut shape.” (*Id.* at col. 6:55-57.) The second disputed claim term, “a living body measuring apparatus with a built-in weight meter,” appears in the preamble of the asserted claims. (*See, e.g., id.* at col. 6:42-43.)

LEGAL STANDARD

Claim construction is a matter of law for the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390-91 (1996). “It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (citing *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In construing a patent claim, courts are to give claim terms their “ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1312-13. The ordinary and customary meaning of a claim term is determined in light of the entire intrinsic evidence, e.g., the claims, the specification, and the prosecution history. *Id.* at 1313. The specification, however, “may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess.” *Id.* at 1316. Under those circumstances, “the inventor’s lexicography governs.” *Id.*

CLAIM CONSTRUCTION

I. Person of Ordinary Skill in the Art

At the *Markman* Hearing, counsel for both parties discussed the identity of the person of ordinary person skill in the art for purposes of construing the disputed claim terms in the ‘385 Patent. Having considered the parties’ positions, the court finds that a person of ordinary skill in the art of the present invention has a bachelor of science degree in electrical or mechanical engineering, or equivalent experience, has experience in designing consumer products, and is capable of understanding the weighing and measuring of living bodies.

II. Disputed Claim Terms in the ‘385 Patent

As discussed above, the parties have identified two claim terms in the ‘385 Patent for the court’s construction: “doughnut shape” and “a living body measuring apparatus with a built-in weight meter.”

1. “Doughnut Shape”

The first disputed claim term, “doughnut shape,” appears in dependent claim 2. Claim 2 depends on claim 1 which states: “A living body measuring apparatus with a build-in weight meter, comprising: a measuring platform; and a plurality of electrodes, wherein said measuring platform has a two-layered configuration having inner and outer boards” (‘385 Patent, col. 6:42-47.) Claim 2 claims “[a] living body measuring apparatus with a built-in weight meter according to claim 1 in which said inner board has a doughnut shape.” (*Id.* at 6:55-57.)

Homedics argues that “doughnut shape” should be construed to mean a “circular shape that has a circular center opening.” (Dkt. No. 58 (“Homedics’s Opening Br.”) at 1.) Tanita, on the other hand, contends that “doughnut shape” is a “shape that has an enclosed center opening.” (Tanita’s Resp. 4.) The parties’ disagreement centers around whether “doughnut shape” refers only to a circular shape or could include any shape, such as a square, triangle, an octagon, or a shape with corners of differing angles. For the following reasons, the court construes the term “doughnut shape” in claim 2 of the ‘385 Patent to mean “a circular-type shape with a circular-type enclosed center opening.”

When construing a claim term, the court first looks to the claim language. *Phillips*, 415 F.3d at 1314-15. In this case, the term “doughnut shape” only appears in dependent claim 2, and the claims provide no indication that the inventors have given the term “doughnut shape” a specialized meaning. The claims therefore indicate that the phrase “doughnut shape” as used in

the '385 Patent should be defined in accordance with its lay meaning, i.e., “a circular-type shape with a circular-type enclosed center opening.” See *Phillips*, 415 F.3d at 1314 (“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.”).

Like the claims, the specification also does not support the broad construction of “doughnut shape” proposed by Tanita. The term “doughnut” appears only once in the specification, in the following description of the preferred embodiment: “The body fat measuring apparatus with the built-in weight meter 1 according to the present invention comprises a measuring platform of two-layered configuration having a *doughnut type inner board 3* and a circular type colorless transparent outer board 4.” (‘385 Patent, col. 3:37-41 (emphasis added).)

Tanita argues that this reference to “doughnut” in the specification suggests that the inner board is *not* circular because, according to Tanita, had the inventors intended “doughnut type” to require a circular shape, they would have used “circular” as a modifier, rather than referring only to the outer board as “circular” while describing the inner board as a “doughnut type.” In other words, by *not* describing the inner board as “circular,” the inventors intended the “doughnut type” inner board to be any shape.

The court disagrees and instead finds that a person of ordinary skill in the art would understand this juxtaposition of “doughnut type” and “circular” as indicating that the inner board, unlike the outer board, has an enclosed center opening; it does not support broadening the definition of “doughnut shape” beyond its plain and ordinary meaning. Moreover, had the

inventors actually intended “doughnut shape” to encompass any geometric shape, they could have illustrated this intention in the specification. For example, the specification teaches that the projection on the measuring electrode may be “any shape” not just “semi-spherical.” (*Id.* at col. 5:50-52.) Noticeably absent from the specification is a similar recognition that the “doughnut shape” inner board could be any shape.

The court also finds that Tanita’s reliance on the May 31, 2002 Amendment (“Amendment”) in the ‘385 Patent’s prosecution history to support its construction of “doughnut shape” is misplaced. In the Amendment, the inventor explained that the “two-layer platform configuration comprising an inner (i.e., lower) board and a transparent outer (i.e., upper) board, wherein the area of the top surface of the inner board is smaller than the area of the top surface of the transparent outer board” “is an important feature of the invention”:

[This feature] enables a measuring apparatus to be designed such that when the apparatus is placed on the floor, the floor can be seen through the portion of the transparent outer board that is not covered by the inner board. This feature permits access to the bottom surface of the outer board from the bottom side of the board, allowing the attachment of a paper or label bearing a caution notice, instruction or the like to the bottom surface of the outer board after assembly of the platform.

(Dkt. No. 59 (“Joint Appendix”) at JA036.) According to Tanita, one way to “design the top surface of the inner board to have a smaller area than the top surface of the outer board . . . to allow access to the bottom surface of the outer board,” is to have a center opening in the inner board. (Tanita’s Resp. 5.) Because the inner board need not be circular to achieve this result, Tanita argues that “doughnut shape” in claim 2 refers only to the enclosed center opening in the inner board, not to the inner board’s overall shape. The court, however, is not persuaded that this singular statement in the prosecution history, which makes no reference to the shape of the

inner board, supports broadening the claim term “doughnut shape” beyond its ordinary and customary meaning. *Phillips*, 415 F.3d at 1317 (“[B]ecause the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.”).

The court also looks to the dictionary definition of “doughnut” in determining how a person of ordinary skill in the art would understand the claim term “doughnut shape” at the time of the patent application. As the Federal Circuit has recognized, the court can consider extrinsic evidence, such as dictionary definitions, “so long as the extrinsic evidence does not contradict the meaning otherwise apparent from the intrinsic record.” *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1382 (Fed. Cir. 2008) (finding dictionary definitions supported district court’s claim construction). In this case, because the intrinsic evidence sheds little light on the proper construction of “doughnut shape” other than to suggest that the term should simply receive its plain and ordinary meaning, the court finds that consideration of the dictionary definition of “doughnut” will assist in properly construing the claim term.

Around 2001, when the ‘385 Patent application was filed, the *American Heritage Dictionary of the English Language* defined “doughnut” as “a small *ring-shaped* cake made of rich, light dough that is fried in deep fat” or “something whose form is reminiscent of a *ring-shaped* cake.” *American Heritage Dictionary of the English Language* (4th ed. 2000) (emphasis added). Similarly, the *Random House Webster’s College Dictionary* defined “doughnut” as “a small, usually *ring-shaped* cake of sweetened dough fried in deep fat” or “any thick, *ring-shaped* object.” *Random House Webster’s College Dictionary* (1999) (emphasis added). The court finds

that these dictionary definitions, which consistently emphasize that a doughnut is “ring-shaped,” support a construction of “doughnut shape” which requires that the inner board in claim 2 have “a circular-type shape with a circular-type enclosed center opening.”

Finally, the extrinsic evidence identified by Tanita does not warrant broadening “doughnut shape” beyond its ordinary and customary meaning. First, much of this extrinsic evidence, which primarily consists of articles and internet searches, is either undated or dated September 3, 2010. (*See* Dkt. No. 62 (“Tanita’s App.”) at TAN0055-67; TAN070-74.) Thus, the court cannot determine whether this evidence was available at the time of the invention in 2001 and has not accorded it much weight. *See Phillips*, 415 F.3d at 1313 (“[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective date of the patent application.”).

Second, the court finds that a majority of Tanita’s identified extrinsic evidence, including the two articles which Homedics agrees the court should consider (Tanita App. at TAN068-69; TAN075l; *see also* Dkt. No. 64 (“Homedics’s Reply”) at 7), actually undermines Tanita’s proposed construction of “doughnut shape.” For example, although the December 22, 2001 article titled “Holidays Sparkle with Christmas Doughnuts” discusses triangle-shaped doughnuts, it explains that these doughnuts “aren’t common doughnuts” because “[t]hey come out of an iron with triangular molds.” (Tanita’s App. at TAN075.) Similarly, the article titled “Square Donuts: Living the Sweet Life on the Edge of Obscurity,” notes that these “square donuts” are “obscur[e]” and “unique” because “[t]hey’re square, instead of round like other doughnuts” and are a “geometrically revolutionary idea.” (*Id.* at TAN068.) In addition, the internet website printouts

from September 3, 2010, repeatedly describe the depicted doughnuts as “square donuts” or “triangle donuts” (*id.* at TAN072-74), thereby suggesting that the term “doughnut,” when used in isolation without these adjectives, does *not* include doughnuts of non-circular-type shapes. The court, therefore, agrees with Homedics that Tanita’s proffered extrinsic evidence does not support broadly construing “doughnut shape” to include any geometric shape with an enclosed center opening.

Consequently, for the above reasons, the court declines to adopt Tanita’s proposed construction, which would embrace all shapes, including squares, triangles and rectangles, and is decidedly at odds with the plain and ordinary meaning of the “doughnut shape” claim term. On the other hand, the court does not believe that the inner board must be a perfect circle to have a “doughnut shape.” Instead, a person of ordinary skill in the art would understand the term “doughnut shape” to encompass *circular-type* shapes that may have rounded or straight edges, such as hexagons, octagons or other similar shapes, with corners forming angles greater than ninety degrees. In reaching this construction, the court is not improperly limiting a claim term to a preferred embodiment, as Tanita suggests, but merely affording the term “doughnut shape” a construction which is consistent with its plain and ordinary meaning. Thus, based on the court’s review of the intrinsic and extrinsic evidence, the court construes “doughnut shape” to mean a “circular-type shape with a circular-type enclosed center opening.”

2. “a living body measuring apparatus with a built-in weight meter”

The second disputed claim term appears in the preamble of all of the asserted claims: “a living body measuring apparatus with a built-in weight meter.” (*See, e.g.*, ‘385 Patent, col. 6:42-43.) According to Tanita, the preamble language should be construed as “a device that measures

a property of a living body, such as body fat, body water, pulse rate or other information useful for healthcare, with a built-in weight meter.” (Tanita’s Resp. 10.)¹ Homedics, on the other hand, argues that the preamble is not a claim limitation and, consequently, does not require any construction. (Homedics’s Reply 8.) Alternatively, Homedics proposes that the correct construction is “a living body impedance measuring apparatus with a built-in weight meter.” (*Id.* at 8, 10.) For the reasons explained below, this court finds that the preamble of the asserted claims is a claim limitation and that the correct construction is “a device that measures a property of a living body, such as body fat, body water, pulse rate or other information useful for healthcare, with a built-in weight meter.”

i. The Preamble as a Claim Limitation

Before the court can construe the preamble, it must first determine whether the preamble is a claim limitation. *See Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008). According to the Federal Circuit, although “there is no simple test for determining when a preamble limits claim scope,” the court has “set forth some general principles to guide that inquiry.” *Am. Med. Sys. v. Biolitec, Inc.*, 618 F.3d 1354, 1358 (Fed. Cir. 2010). For example, because the preamble typically is not a separate claim limitation, “[i]f the preamble ‘is reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim (and was not clearly added to overcome a [prior art] rejection),’” it does not limit the claims. *Id.* at 1359 (quoting *Symantec*, 522 F.3d at 1288-89) (alteration in original). However,

¹ Tanita originally argued that the “weight meter” appearing in the preamble need not be “built-in.” (*See* Tanita’s Resp. 10.) At the *Markman* Hearing, however, Tanita agreed with Homedics that the proper construction of the preamble includes the phrase “with a built-in weight meter,” as opposed to “and a weight meter.”

when a preamble is “necessary to give life, meaning, and vitality to the claim” or sets forth an “essential structure or steps” to the patented invention, the Federal Circuit has instructed that the preamble should be interpreted as a claim limitation. *Id.* at 1358 (quoting *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002)).

In *Computer Docking Station v. Dell, Inc.*, 519 F.3d 1366 (Fed. Cir. 2008), for example, the preamble language at issue described a microprocessor system as “portable.” *Id.* at 1375. Recognizing that the “portable” feature of the invention was “emphasized” in the written description and throughout the prosecution history but not mentioned in the body of the claims, the court concluded that the preamble language was a claim limitation. *Id.*

In *American Medical*, on the other hand, the Federal Circuit held that preamble language describing the function of claim elements was not a claim limitation in part because it did “not embody an essential component of the invention.” *See Am. Med.*, 618 F.3d at 1359. Instead, the preamble phrase, “photoselective vaporization of tissue,” was “simply a descriptive name for the invention that [was] fully set forth in the bodies of the claims.” *Id.* Because the claims described a “structurally complete device,” the court found that the preamble language “photoselective” was not a limitation. *Id.*

In this case, unlike *American Medical*, the court finds that the preamble language “living body measuring apparatus with a built-in weight meter” is a claim limitation because it not only states the “purpose or intended use” of the invention but also recites part of its essential structure. Specifically, the preamble identifies a “built-in weight meter” which is not disclosed in the body of the asserted claims. The built-in weight meter, however, is repeatedly referenced throughout the specification. For example, the Background of the Invention teaches that “[t]he present

invention relates to a living body measuring apparatus with a built-in weight meter” (‘385 Patent, col. 1:11-13; *see also id.* at col. 2:31-33 (“[T]he present invention provides a living body measuring apparatus with a built-in weigh meter”); *id.* at col. 3:37-38 (“The body fat measuring apparatus with the built-in weigh meter”).) Moreover, the “built-in weight meter” also appears in the title of the patent: “Living Body Measuring Apparatus with a *Built-In Weight Meter*.” Thus, rather than merely being duplicative of the claims, the court finds that the preamble recites essential language which, if deleted, would “affect the structure . . . of the claimed invention.” *Am. Med.*, 618 F.3d at 1358-59 (citing *Catalina Mktg.*, 289 F.3d at 809). The court, therefore, agrees with Tanita that the preamble language is a claim limitation.

ii. Construction of the Preamble

Having determined that the preamble is a claim limitation, the court next addresses the proper construction of the preamble phrase, “a living body measuring apparatus with a built-in weight meter.” In this case, because the ‘385 Patent’s claims offer little insight into the meaning of the preamble language, the court looks primarily to the specification to determine the correct construction. *See Phillips*, 415 F.3d at 1315 (recognizing that the specification “is the single best guide to the meaning of a disputed term” (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996))).

According to the ‘385 Patent’s specification, “[t]he present invention relates to a living body measuring apparatus for measuring a living body impedance and for providing a body fat rate or other information useful for health care.” (‘385 Patent, col. 1:8-11.) The specification further explains that the invention described in the ‘385 Patent “is not limited” to an apparatus which measures only body fat: “For example, the present invention may equally apply to a body

water measuring apparatus with a built-in weight meter including electrodes for measuring living body impedance, or to a pulsometer with a built-in weight meter.” (*Id.* at col. 5:60-67.)

Consequently, the court finds that Tanita’s proposed construction of the preamble, which defines the disputed language as “a device that measures a property of a living body, such as body fat, body water, pulse rate or other information useful for healthcare, with a built-in weight meter,” is consistent with the specification.

Homedics, however, argues that the appropriate construction of the preamble should be limited to “a living body *impedance* measuring apparatus” because the claim body of independent claim 1 recites “a plurality of electrodes . . . to measure a living body impedance,” thus requiring that the word “impedance” be included in the construction. (Homedics’s Reply 10.) The court disagrees and instead finds that including “impedance” in the construction of the preamble would render the use of that same term in the body of the claims superfluous. *See Merck & Co., Inc. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”).

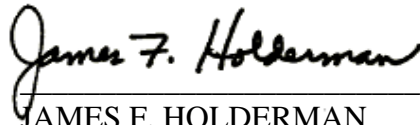
Moreover, contrary to Homedics’s argument, Tanita’s proposed construction does not improperly import limitations from the specification into the claims but rather reflects how a person of ordinary skill in the art would understand the language in the preamble after having read the entire patent, including the specification. *See ICU Med. v. Alaris Med. Sys.*, 558 F.3d 1368, 1375 (Fed. Cir. 2009) (citing *Phillips*, 415 F.3d at 1321). Notably, Homedics has not argued that Tanita’s proposed construction is narrower than the invention disclosed in the specification nor has it identified any portion of the specification that contradicts Tanita’s proposed construction.

Consequently, based on the claims and the specification, the court agrees with Tanita that “a living body measuring apparatus with a built-in weight meter” is “a device that measures a property of a living body, such as body fat, body water, pulse rate or other information useful for healthcare, with a built-in weight meter.”

CONCLUSION

For the reasons discussed above, the court construes “doughnut shape” to mean a “circular-type shape with a circular-type enclosed center opening” and “living body measuring apparatus with a built-in weight meter” to mean “a device that measures a property of a living body, such as body fat, body water, pulse rate or other information useful for healthcare, with a built-in weight meter.”

ENTER:

A handwritten signature in black ink that reads "James F. Holderman". The signature is written in a cursive, flowing style. Below the signature is a solid horizontal line.

JAMES F. HOLDERMAN

Chief Judge, United States District Court

Date: **November 4, 2010**